

subbituminous coals are used. Diesel fuel is also combusted during the startup, shutdown, maintenance, performance tests, upsets and for flame stabilization. Self generated used oil is combusted for energy recovery.

IGS is a two unit facility operating at a rated capacity of 875 megawatts (MW) per unit (gross). Approximately 5.3 million tons of coal and 600,000 gallons of oil (including used oil) are used each year in the production of electricity. Normal boiler operating capacity is about 6.2 million pounds per hour of steam flow at 2822 psi. The current boiler maximum capacity rating (MCR) is 6.6 million lbs steam per hour at 2975 psi.

IGS has in place bulk handling equipment for the unloading, transfer, storage, preparation, and delivery of solid and liquid fuel to the boilers. No changes of this equipment are proposed. No changes in the usage of other raw materials or bulk chemicals are planned.

2. PROPOSED CHANGES:

IPSC will enhance steam flow characteristics through the high pressure (HP) section of each turbine used to generate electricity. This involves the replacement of the HP turbines with a modified design that improves performance and reliability.

Combined proposed modifications to other areas of the plant will increase unit generating capacity from 875 to 950 MW. These modifications consist of re-configuring critical points that presently prevent the full utilization of present equipment. Other changes are needed for reliability, performance and/or routine maintenance purposes.

Approximately 7.3 million tons of coal and 600,000 gallons of oil (including used oil) could be used each year in the production of electricity.

3. EMISSION CHARACTERISTICS:

The composition and physical characteristics of the emissions are expected to change as a result of the proposed modifications, indicated in the emission summary. The mass flow of chimney effluent may change proportionately with the change in the heat input.

The existing pollution control devices include low-NO_x burners, fabric filters, wet scrubbers and auxiliary equipment dust collectors.

4. POLLUTION CONTROL DEVICE DESCRIPTION:

The existing pollution control device equipment includes dual register low NO_x burners (B&W Mark V), GEESI baghouse type fabric filters for particulate removal, and GEESI flue gas desulfurization scrubbers. The existing low NO_x burners provide a nominal 60% reduction in potential combustion NO_x formation, the baghouse filters operate at nominal 99.95% efficiency, and the existing wet scrubbers operate at nominal 90% efficiency. Control equipment for the handling and transfer of solid material include dust collection filters.